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PHOTOSENSITIVE ACRYLATE COMPOSITION AND WAVEGUIDE DEVICE ABSTRACT

A photosensitive composition suitable for practical waveguide devices is provided. The photosensitive composition comprises at least one multifunctional acrylate prepared from a fluorinated multifunctional alcohol and at least one photoinitiator. The said composition has high photo contrast, high curing speed, controllable refractive index, low curing shrinkage, high thermo-optic coefficient, low volatility and high viscosity. A waveguide device is formed by patterning the photosensitive composition.